

...helping Massachusetts businesses reduce solid waste, cut disposal costs, and improve environmental performance...



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Who we are...

WasteCap of Massachusetts

The statewide, non-profit, public/private partnership working with the business community to develop and implement cost-effective programs for recycling, buying recycled, reuse, and waste reduction.

WasteCap History

Formed in 1994

- ▶ Partnership between
 - Mass. Executive Office of Environmental Affairs
 - Mass. Department of Environmental Protection
 - Massachusetts businesses
- ▶ Non-regulatory and non-profit

Commercial Waste in Massachusetts



- ▶ **1,125,000 elephants** – the weight of waste generated each year by businesses.
- ▶ In Massachusetts, businesses generate over **4.5 million tons of waste** – more than half of all waste sent to landfills and combustion facilities in the Commonwealth each year.

Overview of Waste Generation

Solid Waste Generation

MSW
62%

Non-MSW
38%

MSW Generation

Commercial
55%

Residential
45%

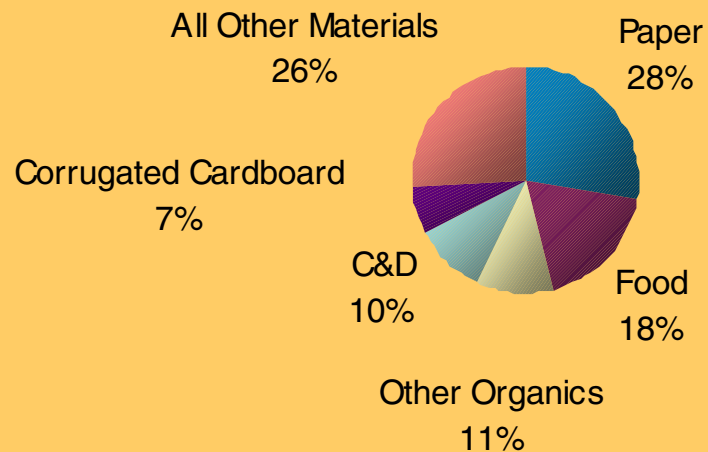
Non-MSW Generation

C&D
95%

Other
5%

Commercial Characterization

Top Five Materials Disposed in 2000 in Comparison With All Other Materials



Why the Supermarket ROI?

- ▶ MA DEP Beyond 2000: Solid Waste Master Plan
 - 70% reduction goal by 2010
 - Target commercial sector
 - Priority materials: C&D, Paper, Organics
- ▶ Food = 40% of the supermarket industries waste stream by weight (according to MA DEP's Commercial Waste Assessment Report, 2000).

Establishing a Network

- ▶ Program partners:
 - WasteCap of Massachusetts
 - Massachusetts Department of Environmental Protection
 - Massachusetts Food Association
 - Ted Brown Consulting
 - Supermarkets
- ▶ Provide technical assistance, troubleshooting, program sustainability



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Supermarket ROI Program Goals



- ▶ Save supermarkets money in waste disposal costs.
- ▶ Recycle food residuals and other compostable materials in a simple fashion without affecting other operations.
- ▶ Improve the company's community image by recycling valuable natural resources and saving scarce landfill capacity.

Successful Supermarket Programs

National & New
England:

- Hannaford
- Shaw's
- Big Y



- Price Chopper
- Roche Bros.
- Stop & Shop
- Whole Foods

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Successful Supermarket Programs

► Roche Bros.:

- 3 stores now saving \$60,000 annually in waste disposal costs
- Formerly generated 565 tons per year of trash, now 110 tons per year
- 80 % recycling rate

Successful Supermarket Programs

- ▶ Stop & Shop:
 - 10 stores on Cape Cod
 - 15 – 25% reduction in waste disposal costs
 - recycling up to 80 % of their waste

Successful Supermarket Programs

- ▶ Whole Foods - Hadley:
 - Started in 1998
 - Composting 50% of their waste
 - Combined recycling/composting rate of 75 – 80%
 - 24% reduction in waste disposal costs

Pilot Projects



- ▶ Whole Foods Market – region wide initiative
- ▶ Shaw's Supermarkets on Cape Cod
- ▶ Big Y in Western Massachusetts

Target Materials

- ▶ Food cull & trim
- ▶ Out-of-date food
- ▶ Floral trimmings
- ▶ Wood
- ▶ Wet/waxed cardboard



Costs and Savings

Average 40,000 s.f supermarket employing 150 full and part time staff:

- ▶ Generates 400 – 600 tons of waste annually
- ▶ 75% of waste stream is organic
- ▶ Trash disposal rate = \$90/ton
- ▶ Recycling organics rate = \$60/ton
- ▶ **Annual savings of \$11,250/year**

Leadership Role

- ▶ Corporate buy-in: Signing a MOU



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Supermarket Recycling Organics Initiative Sample Memorandum of Understanding

On this day of , 2003, (the Supermarket)
agrees to enter into an agreement with WasteCap of Massachusetts to participate in
Supermarket Recycling Organics Initiative (ROI).

- ▶ Appointing a Program Manager

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Handbook for Supermarket Program Managers



- ▶ A step-by-step manual to help supermarkets navigate recycling organic materials in their store
- ▶ Includes:
 - Steps to implement a program
 - Collection systems
 - Training materials
 - Waste audit and cost analysis
 - Monitoring and sustainability
- ▶ \$39.95 (plus \$5.00 shipping)

Site Visit



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Waste Sort



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Waste Sort Results

Waste Component	Percent of Total Sample Volume (estimated)	Percent of Total Sample Weight (estimated)
Mixed Office Paper	1.0%	
Corrugated Cardboard	10.0%	
Plastic film	15.0%	
Polystyrene	1.5%	
Plastic Containers	1.5%	
Metal Containers	0.0%	
Glass Containers	0.0%	
Food Residuals	47.0%	85.0%
Scrap Wood	8.0%	
Waxed Cardboard	13.0%	
Construction & Demolition	2.0%	
Trash	1.0%	
Totals	100.0%	



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Cost Benefit Analysis

2002 Operating Costs

	Total tons/yr	Tip \$ /ton	Total tip cost	Hauls/yr	\$/Haul	Total haul cost	Total cost
Hauling & Disposal	450.54		\$ 27,785.00			\$ 5,670.00	\$ 33,435.00
Additional Operating Costs							\$ 4,120.57
TOTAL							\$ 37,555.57

Total estimated annual operating costs for new program \$ 30,485.91

Estimated operating cost savings \$ 7,069.66

- ▶ ~\$ 7,070 annual savings!!
- ▶ Recycling organics, OCC, mixed paper, bottles & cans, plastic film, plastic pails, packing peanuts

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Compactors and Containers



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Training



Organics



- vegetables, fruit
- spoiled food
- wet/waxed cardboard
- coffee grounds, filters
- paper towels, paper
- wood pieces
- dairy
- flowers, plants, soil
- deli and bakery products
- food preparation scraps
- grocery and frozen foods

Trash



- food packaging
- plastic gloves
- styrofoam
- twist ties
- rubber bands
- plastic tableware
- candy wrappers
- band-aids, tape
- rope, twine
- mixed trash

Always DE-PACKAGE organics before recycling!

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Recycling Organics Initiative

Produce Department

ORGANICS RECYCLING GUIDELINES

When throwing anything away, keep **ORGANICS** and **TRASH** separate.

ORGANICS COLLECTION

ALWAYS DE-PACKAGE ORGANICS BEFORE RECYCLING
(remove all plastic, metal, glass, styrofoam)

The following items are recyclable **ORGANICS**:

- Fruit and vegetable cull and trim
- Spoiled food products
- Wet and waxed cardboard
- Wood pieces
- Paper towels, paper, waxed paper

Place **ALL ORGANIC** materials in recycling containers marked **ORGANICS**.

TRASH COLLECTION

The following items are **TRASH**:

- Food packaging/wrap
- Plastic gloves
- Styrofoam
- Twist ties, rubber bands
- Wire
- Band-aids, tape, rope, twine

Place **ALL TRASH** materials in regular **TRASH** barrels to be unloaded into **TRASH** Compactor.

RECYCLE CARDBOARD BOXES FOLLOWING STORE PROCEDURES.

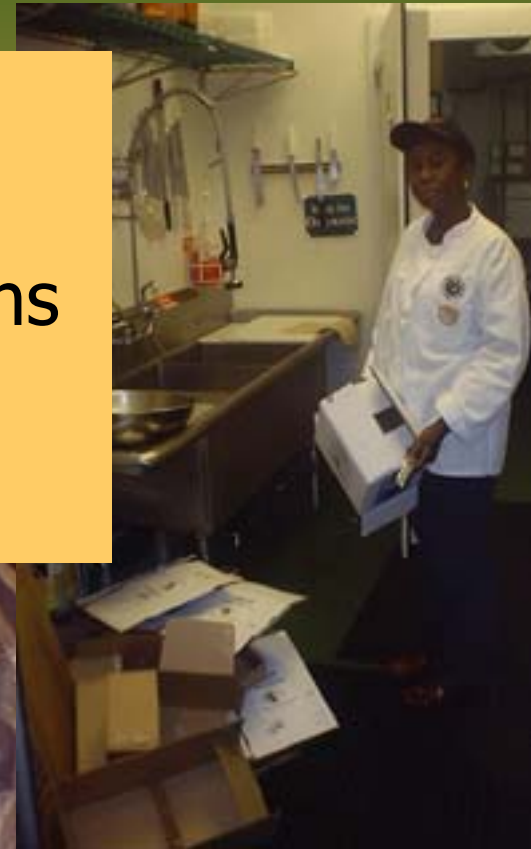
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Monitoring: QA/QC



Recycling on Site

- ▶ Cardboard
- ▶ Mixed Paper
- ▶ Bottles & Cans
- ▶ Rendering
- ▶ Composting



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Backhaul Opportunities



- ▶ Plastic pails
- ▶ Plastic bags
- ▶ Shrink wrap
- ▶ Stretch wrap



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WasteCap Services

- ▶ Website (www.wastecap.org)
- ▶ Telephone Technical Assistance
- ▶ Recycling Services Directory
- ▶ Site Visits
- ▶ Buy Recycled
- ▶ Surplus Inventory Donation Program
- ▶ Newsletter & Monthly Email Updates
- ▶ Small Business Recycling Partnerships
- ▶ Race-to-Recycle

Contact Us

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